

PEOPLE & IDEAS

- e202210049 **Elvan Böke: Long live the oocyte**

Lucia Morgado-Palacin

SPOTLIGHTS

- e202210008 **Lipid droplets go through a (liquid crystalline) phase**

Ian A. Windham and Sarah Cohen

- e202209063 **SPIN(DLY)-OFF: A tale of conformational change to control DYNEIN**

João Barbosa, Claudio E. Sunkel, and Carlos Conde

- e202210014 **A second chance at yeast early endosomes**

Allyson F. O'Donnell

- e202210007 **Cholesterol: Enhancing FGF2 translocation in unconventional secretion**

Haodong Wang, Min Zhang, and Liang Ge

REVIEWS

- e202109133 **Lysosomal solute and water transport**

Meiqin Hu, Nan Zhou, Weijie Cai, and Haoxing Xu

- e202208092 **NBR1: The archetypal selective autophagy receptor**

Nikoline Lander Rasmussen, Athanasios Kournoutis, Trond Lamark, and Terje Johansen

REPORTS

- e202011050 **Viral protein engagement of GBF1 induces host cell vulnerability through synthetic lethality**

Arti T. Navare, Fred D. Mast, Jean Paul Olivier, Thierry Bertomeu, Maxwell L. Neal, Lindsay N. Carpp, Alexis Kaushansky, Jasmin Coulombe-Huntington, Mike Tyers, and John D. Aitchison

- e202201160 **Mitochondrial dysfunction triggers actin polymerization necessary for rapid glycolytic activation**

Rajarshi Chakrabarti, Tak Shun Fung, Taewook Kang, Pieti W. Elonkirjo, Anu Suomalainen, Edward J. Usherwood, and Henry N. Higgs

ARTICLES

- e202205053 **Triglyceride lipolysis triggers liquid crystalline phases in lipid droplets and alters the LD proteome**

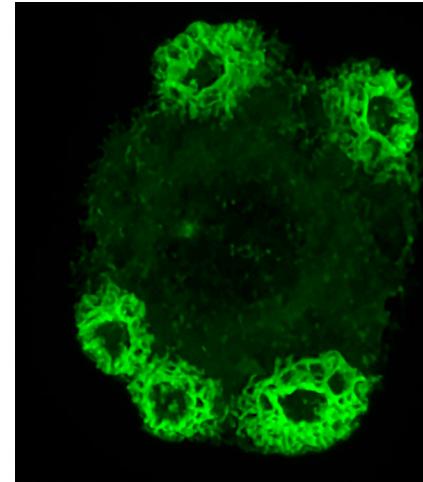
Sean Rogers, Long Gui, Anastasiia Kovalenko, Valeria Zoni, Maxime Carpentier, Kamran Ramji, Kalthoum Ben Mbarek, Amelie Bacle, Patrick Fuchs, Pablo Campomanes, Evan Reetz, Natalie Ortiz Speer, Emma Reynolds, Abdou Rachid Thiam, Stefano Vanni, Daniela Nicastro, and W. Mike Henne

- e202207091 **Stress granules and mTOR are regulated by membrane atg8ylation during lysosomal damage**

Jingyue Jia, Fulong Wang, Zambarlal Bhujabal, Ryan Peters, Michal Mudd, Thabata Duque, Lee Allers, Ruheena Javed, Michelle Salemi, Christian Behrends, Brett Phinney, Terje Johansen, and Vojo Deretic

- e202202100 **Non-catalytic allostery in α-TAT1 by a phospho-switch drives dynamic microtubule acetylation**

Abhijit Deb Roy, Evan G. Gross, Gayatri S. Pillai, Shailaja Seetharaman, Sandrine Etienne-Manneville, and Takanari Inoue

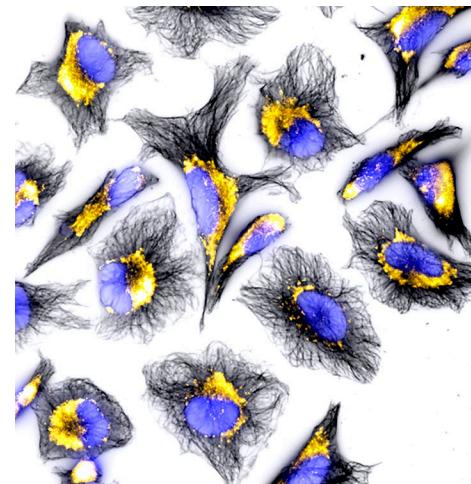


ON THE COVER

Confocal image of a RAW264.7 macrophage expressing the GFP-tagged Lamellipodin mutant that does not bind Ena/Vasp (LpdEVmut) showing formation of phagocytic cups during IgG-mediated phagocytosis.

Image © Montaño-Rendón et al., 2022
<https://doi.org/10.1083/jcb.202207042>

- e202202063 **The lectin Discoidin I acts in the cytoplasm to help assemble the contractile machinery**
Ly T.S. Nguyen and Douglas N. Robinson
- e202206131 **Conformational transitions of the Spindly adaptor underlie its interaction with Dynein and Dynactin**
Ennio A. d'Amico, Misbha Ud Din Ahmad, Verena Cmentowski, Mathias Girbig, Franziska Müller, Sabine Wohlgemuth, Andreas Brockmeyer, Stefano Maffini, Petra Janning, Ingrid R. Vetter, Andrew P. Carter, Anastassis Perrakis, and Andrea Musacchio
- e202110114 **Type II phosphatidylinositol 4-kinases function sequentially in cargo delivery from early endosomes to melanosomes**
Yueyao Zhu, Shuixing Li, Alexa Jaume, Riddhi Atul Jani, Cédric Delevoye, Graça Raposo, and Michael S. Marks
- e202110132 **PI4P and BLOC-1 remodel endosomal membranes into tubules**
Riddhi Atul Jani, Aurélie Di Cicco, Tal Keren-Kaplan, Silvia Vale-Costa, Daniel Hamaoui, Ilse Hurbain, Feng-Ching Tsai, Mathilde Di Marco, Anne-Sophie Macé, Yueyao Zhu, Maria João Amorim, Patricia Bassereau, Juan S. Bonifacino, Agathe Subtil, Michael S. Marks, Daniel Lévy, Graça Raposo, and Cédric Delevoye
- e202202011 **The low-density lipoprotein receptor-mTORC1 axis coordinates CD8⁺ T cell activation**
Fabrizia Bonacina, Annalisa Moregola, Monika Svecla, David Coe, Patrizia Ubaldi, Sara Fraire, Simona Beretta, Giangiacomo Beretta, Fabio Pellegatta, Alberico Luigi Catapano, Federica M. Marelli-Berg, and Giuseppe Danilo Norata
- e202109137 **Recycling of cell surface membrane proteins from yeast endosomes is regulated by ubiquitinylated Ist1**
Kamilla M.E. Laidlaw, Grant Calder, and Chris MacDonald
- e202106123 **Cholesterol promotes clustering of PI(4,5)P₂ driving unconventional secretion of FGF2**
Fabio Lolicato, Roberto Saleppico, Alessandra Griffo, Annalena Meyer, Federica Scollo, Bianca Pokrandt, Hans-Michael Müller, Helge Ewers, Hendrik Hähl, Jean-Baptiste Fleury, Ralf Seemann, Martin Hof, Britta Brügger, Karin Jacobs, Ilpo Vattulainen, and Walter Nickel
- e202012042 **Spatiotemporal control of actomyosin contractility by MRCKβ signaling drives phagocytosis**
Ceniz Zihni, Anastasios Georgiadis, Conor M. Ramsden, Elena Sanchez-Heras, Alexis J. Haas, Britta Nommiste, Olha Semenyuk, James W.B. Bainbridge, Peter J. Coffey, Alexander J. Smith, Robin R. Ali, Maria S. Balda, and Karl Matter
- e202207042 **PtdIns(3,4)P₂, Lamellipodin, and VASP coordinate actin dynamics during phagocytosis in macrophages**
Fernando Montaño-Rendón, Glenn F.W. Walpole, Matthias Krause, Gerald R.V. Hammond, Sergio Grinstein, and Gregory D. Fairn
- TOOLS**
- e202109100 **In vivo 3D profiling of site-specific human cancer cell morphotypes in zebrafish**
Dagan Segal, Hanieh Mazloom-Farsibaf, Bo-Jui Chang, Philippe Roudot, Divya Rajendran, Stephan Daetwyler, Reto Fiolka, Mikako Warren, James F. Amatruda, and Gaudenz Danuser
- e202107093 **Quality assessment in light microscopy for routine use through simple tools and robust metrics**
Orestis Faklaris, Leslie Bancel-Vallée, Aurélien Dauphin, Baptiste Monterroso, Perrine Frère, David Geny, Tudor Manoliu, Sylvain de Rossi, Fabrice P. Cordelières, Damien Schapman, Roland Nitschke, Julien Cau, and Thomas Guilbert



The image shows HeLa cells treated with Ellagic acid, an inhibitor of Casein Kinase 2, followed by fixation and immunostaining for acetylated α -Tubulin (yellow), total α -tubulin (grayscale), and nuclei (DAPI, blue). Inhibition of Casein Kinase 2 caused nuclear sequestration of α -TAT1, the acetyltransferase for α -tubulin, leading to loss of microtubule acetylation.

Image © Deb Roy et al., 2022
<https://doi.org/10.1083/jcb.202202100>